

Application No.: 10/734,947  
Docket No.: BB1535 US NA

Page 2

### AMENDMENTS TO CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### Listing of Claims:

1. (previously presented) A method for decreasing the ratio of liquiritigenin-derived isoflavones relative to total isoflavone levels in an isoflavonoid-producing plant the method comprising:
  - a) transforming a plant cell with a recombinant construct comprising a promoter operably linked to a nucleic acid sequence of at least 200 nucleotides having at least 75% sequence identity to SEQ ID NO:4;
  - b) regenerating a transformed plant from the transformed plant cell of (a); and
  - c) evaluating the transformed plant obtained from step (b) for a reduced ratio of liquiritigenin-derived isoflavones relative to total isoflavone levels as compared to the ratio of liquiritigenin-derived isoflavones relative to total isoflavone levels in an untransformed plant.
2. (previously presented) The method of Claim 1 wherein the promoter is operably linked, in a sense orientation, to the nucleic acid sequence.
3. (previously presented) The method of Claim 1 wherein the promoter is operably linked, in an anti-sense orientation, to the nucleic acid sequence.
4. (previously presented) The method of Claim 1 wherein the recombinant construct comprises a stem-loop structure.
5. (previously presented) The method of Claim 4 wherein the nucleic acid sequence forms a stem in the stem-loop structure.
6. (previously presented) The method of Claim 4 wherein the nucleic acid sequence forms a loop in the stem-loop structure.

Application No.: 10/734,947  
Docket No.: BB1535 US NA

Page 3

7. (previously presented) The method of Claim 4 wherein the nucleic acid sequence forms a loop in the stem-loop structure and the stem consists essentially of SEQ ID NO:7.

8. (previously presented) The method of Claim 1 wherein the promoter is a seed-specific promoter.

9. (previously presented) The method of Claim 1 wherein the isoflavonoid-producing plant is selected from the group consisting of soybean, clover, mung bean, lentil, hairy vetch, alfalfa, lupine, sugar beet, and snow pea.

10. (previously presented) An isoflavonoid-producing plant made by the method of any of Claims 1 to 8 wherein the plant has a reduced ratio of liquiritigenin-derived isoflavones relative to total isoflavone levels as compared to the ratio of liquiritigenin-derived isoflavones relative to total isoflavone levels in an untransformed plant.

11. (previously presented) The isoflavonoid-producing plant of Claim 9 wherein the plant is selected from the group consisting of soybean, clover, mung bean, lentil, hairy vetch, alfalfa, lupine, sugar beet, and snow pea.

12. (previously presented) Seeds or plant parts of the plant of Claim 11.

Claims 13-20 (cancelled)

21. (previously presented) An isoflavonoid-producing plant comprising in its genome a recombinant construct comprising a promoter operably linked to a nucleic acid sequence of at least 200 nucleotides and having at least 75% sequence identity to SEQ ID NO:4 wherein the plant has a reduced ratio of liquiritigenin-derived isoflavones relative to total isoflavone levels as compared to the ratio of liquiritigenin-derived isoflavones relative to total isoflavone levels in an untransformed plant.

Application No.: 10/734,947  
Docket No.: BB1535 US NA

Page 4

22. (previously presented) The isoflavonoid-producing plant of Claim 21 wherein the plant is selected from the group consisting of soybean, clover, mung bean, lentil, hairy vetch, alfalfa, lupine, sugar beet, and snow pea.
23. (previously presented) The plant of Claim 22 wherein recombinant construct comprises a promoter operably linked, in sense orientation, to the nucleic acid sequence.
24. (previously presented) The plant of Claim 22 wherein recombinant construct comprises a promoter operably linked, in an anti-sense orientation, to the nucleic acid sequence.
25. (previously presented) The plant of Claim 22 wherein the recombinant construct comprises a stem-loop structure.
26. (previously presented) The plant of Claim 22 wherein the recombinant construct comprises a stem-loop structure in which the nucleic acid sequence forms the stem.
27. (previously presented) The plant of Claim 22 the recombinant construct comprises a stem-loop structure in which the nucleic acid sequence forms the loop.
28. (previously presented) The plant of Claim 22 wherein the recombinant construct comprises a stem-loop structure in which the nucleic acid sequence forms the loop in the stem-loop structure and the stem consists essentially of SEQ ID NO:7.
29. (previously presented) The plant of Claim 22 wherein the recombinant construct comprises a seed-specific promoter.
30. (previously presented) Seeds or plant parts of the plant of any of Claims 22-29.

Claims 31-39 (cancelled)